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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/441,083

11/16/1999

KIYOSHI SUKEGAWA

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02/24/2004

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/441,083

Applicant(s)

SUKEGAWA ET AL.

Examiner

Dzung D Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al. U.S. patent no. 5,995,254 in view of Shimomura U.S. patent no. 6,404,525.

In considering claims 1 and 12-16, Koga et al. disclose a wavelength division multiplexing light transmitting system which can monitor its transmission line, the transmission line monitoring comprising:

a first optical coupling unit (figure 2, element 7 of 1A) which couples a down data signal of a first wavelength (figure 2, element λ_1 , col. 4, lines 1-3) and an examination signal of a second wavelength (figure 2, element λ_2 , col. 4, lines 1-3) so as to transmit a first coupled signal to a lower apparatus (column 3, lines 36-50);

a first optical dividing unit (figure 2, element 9 of 2A) to demultiplex said first coupled signal (λ_1 , λ_2) from said optical coupling unit so as to divide and split said first coupled signal (λ_1 , λ_2) into said down data signal with the first wavelength (λ_1 , column 3, lines 36-50) and said examination signal with the second wavelength (λ_2 , column 3, lines 36-50);

a second optical coupling unit (figure 2, element 7 of 1B) which couples an up data signal with the first wavelength (λ_1) and said examination signal (λ_2) from said first optical dividing unit so as to transmit a second coupled signal toward a host apparatus;

a second optical dividing unit (figure 2, element 9 of 2A) to demultiplex said second coupled signal (λ_1 , λ_2) from said second optical coupling unit so as to divide said second coupled signal into said up data signal with the first wavelength (λ_1) and said examination signal with the second wavelength (λ_2). Koga further discloses the receiving sections 11, 27, 28, 29 receive the monitor light for monitoring and detecting a condition of the transmission line (abstract, column 2, lines 19-50, column 3, lines 60 to column 4, line 46). However, Koga does not specifically disclose a monitoring unit which monitors a fault and a location of said fault. Shimomura et al. disclose a monitor unit which monitors a fault and a location of said fault (column 6, line 43, column 7, lines 27-28, 41-42, column 15, lines 59-60, column 16, lines 13, 27-28, 58). Therefore, it would have been obvious to an artisan at the time of the invention was made to include the monitor unit of Shimomura in the transmission line monitoring of Koga. One of an ordinary skill in the art would have been motivated to do that in order to not only allow the system of Koga to detect fault but to also provide the additional advantage of allowing the system of Koga to identify the location of fault.

In considering claim 2, Koga et al. further disclose first optical coupling unit, said first optical dividing unit, said second optical coupling unit, and said second optical dividing unit are formed of passive elements (Figure 2, elements 13, 14).

In considering claim 3, Koga et al. further disclose a first examination signal generator (figure 2, element 24) which generates said examination signal with the second wavelength (figure 2, element λ_2).

In considering claim 5, Koga et al. further disclose a second examination signal generator (figure 2, element 24) which divides an input down data signal into two signals, one signal being converted into said down data signal with the first wavelength, the other signal being converted into said examination signal with the second wavelength.

In considering claims 4, 7 and 8, Shimomura et al. further disclose control unit includes:

an alarm information output unit which monitors a signal level of said examination signal with the second wavelength and, if said signal level is lower than a predetermined signal level, then outputs alarm information (column 5, lines 29-63); and

an alarm information displaying/transferring unit which, when said alarm information is outputted, displays said alarm information and insert said alarm information into said up data signal to be transmitted to said host apparatus and controls start and stop of said alarm information output unit and start and stop of said alarm information display/transferring unit (abstract, column 5 line 29 to column 6, line 63).

In considering claim 10, Shimomura et al. further disclose detecting unit which detects a command signal included in said down data signal so as to manage said first

control unit based on said command signal (figure 1, abstract and column 10 line 48 to column 12, line 17).

In considering claim 6, Shimomura et al. further disclose system monitor detects an error information output unit which outputs synchronous error information and data signal error information based on said examination signal with the second wavelength; and an error information displaying/transferring unit which, when said synchronous error information and said data signal error information are outputted, displays said error information and inserts said error information into said up data signal to be transmitted to said host apparatus (abstract, column 10 line 48 to column 12, line 17).

3. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al. U.S. patent no. 5,995,254 in view of Shimomura U.S. patent no. 6,404,525 and further in view of Fassih-Nia et al. U.S. patent no. 6,307,652.

In considering claim 11, as per claims above, Koga and Shimomura disclose all the limitations except for a timer for managing said first control unit at given intervals. Fassih-Nia et al. disclose the control unit with a timer (column 3, lines 54-65). It would have been obvious to an artisan at the time of the invention was made to include the control unit with a timer of Fassih-Nia et al. in the system of Koga and Shimomura. One of an ordinary skill in the art would have been motivated to do that in order to manage the timing of the optical signal and control the monitoring signals.

In considering claim 11, Shimomura et al. further disclose detecting unit which detects a command signal included in said down data signal so as to manage said first

control unit based on said command signal (figure 1, abstract and column 10 line 48 to column 12, line 17).

Response to Arguments

4. Applicant's arguments filed on 01/02./2003 have been fully considered but they are not persuasive.

Applicant argued that neither Koga nor Shimomura teach or suggest "demultiplexing the couple signal to divide and split the signal having the first wavelength from the examination signal having the second wavelength" where the examination signal having the second wavelength is return to the source. However, in figure 2, Koga clearly teaches an optical dividing unit (figure 2, element 9 of 2A) for demultiplexing said first coupled signal (λ_1 , λ_2) so as to divide and split said first coupled signal (λ_1 , λ_2) into said down data signal with the first wavelength (λ_1 , column 3, lines 36-50) and said examination signal with the second wavelength (λ_2 , column 3, lines 36-50) where the examination signal having the second wavelength is return to the source (col. 4, lines 1-36).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600